

Deployment Risk and Resilience Inventory-2 (DRRI-2): An Updated Tool for Assessing Risk and Resilience Factors Related to the Postdeployment Health of Military Personnel and Veterans

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Original Deployment Risk and Resilience Inventory (DRRI)

- Developed in response to recognition that other factors besides combat are implicated in post-deployment health of War Veterans
- Scales address both mission-related and interpersonal factors
- Both pre-deployment and post-deployment factors addressed
- Ample evidence for reliability and validity of scales, based primarily on Gulf War Veteran samples¹

¹King, King, Vogt, Knight & Samper (2006)



Deployment Risk and Resilience Inventory-2 (DRRI-2)



- Recently updated to address changes in nature of the constructs assessed and populations under study
 - Expanded assessment of stressors of contemporary warfare
 - Enhanced coverage of family-related factors across deployment cycle
- Finalized inventory includes 17 distinct scales that take an average of between 1-3 minutes to complete each
- Multi-year psychometric development procedure
 - Drew from two large national surveys of OEF/OIF Veterans
 - Involved both classical test theory and item response theory analyses

DRRI-2 Development Procedure

Phase I Aim:

Examine content validity of DRRI scales and revised item sets as needed

Reviewed deployment stress literature and existing measures of deployment-related constructs

Conducted focus groups with diverse sample of recently deployed OEF/OIF Veterans (N = 21)

Applied information to inform item revisions and new item development

Submitted items for review by content/instrument development experts and members of target population, and made additional revisions

Phase II Aim:

Assess initial item and scale characteristics of tentative DRRI-2 scales and made further revisions as needed

Administered tentative DRRI-2 scales to national mail survey of OEF/OIF Veterans (N = 469)

Performed Classical Test Theory (CTT) item and scale analyses

Conducted Item Response Theory (IRT) analyses

Based on gaps in content coverage identified in IRT analyses, developed new items and revised existing items

Phase III Aim:

Evaluate the psychometric quality of finalized DRRI-2 scales

Administered DRRI-2 scales to national mail survey of OEF/OIF Veterans (N = 1,046)

Performed CTT and IRT item analyses

Identified final DRRI-2 item sets based on assessments of content domain coverage, range of construct coverage, and measurement precision

Documented the internal consistency reliability, criterion-related validity, and incremental validity of finalized DRRI-2 scales

Risk and Resilience Factors: Predeployment



Childhood Family Functioning ($\alpha = .95$; $r = -.15$)

- A 12-item scale assessing quality of family relationships in the family of origin in terms of both communication and closeness
 - “I felt like my contributions to my family were appreciated.”
 - “I spent as much of my free time with family members as possible.”



Prior Stressors ($r = .33$)

- An 18-item Yes/No scale assessing exposure to highly stressful or traumatic events before deployment
 - “Before I was deployed I went through a divorce or was left by a significant other.”
 - “Before I was deployed I was physically punished by a parent or primary caregiver.”

Risk and Resilience Factors: Deployment – Mission Related



Preparedness ($\alpha = .91$; $r = -.28$)

- A 10-item scale assessing the extent to which individuals perceive that they were prepared for deployment in terms of both having needed equipment and supplies and necessary training and preparation
 - “I received appropriate training for the nature of the deployment I experienced.”
 - “My unit was well-prepared to operate as a team during deployment.”



Combat Experiences ($r = .45$)

- A 17-item scale assessing exposure to combat-related circumstances such as firing a weapon, being attacked or fired on, and going on special missions and patrols that involve such experiences
 - “While deployed I was exposed to hostile incoming fire.”
 - “While deployed I personally witnessed enemy combatants being seriously wounded or killed.”

Risk and Resilience Factors: Deployment – Mission Related (cont.)



Aftermath of Battle ($r=.43$)

- A 13-item scale assessing exposure to the consequences of warfare, such as observing or handling human remains and interacting with detainees or prisoners of war
 - “I observed homes or communities that had been destroyed.”
 - “I saw enemy combatants after they had been severely wounded or disfigured.”



Perceived Threat ($\alpha = .91$; $r=.55$)

- A 12-item scale assessing fear for one's safety and well-being during deployment, especially as a response to potential exposure to circumstances of combat
 - “I was concerned that I would encounter an explosive device (for example, a roadside bomb, mine, or booby trap).”
 - “I was concerned about being trapped in the crossfire of rival factions.”

Risk and Resilience Factors: Deployment – Mission Related (cont.)



NBC Exposures ($r=.40$)

- A 13-item Yes/No/Maybe measure assessing endorsed exposure to nuclear, biological, and chemical agents in the war zone, such as disease prophylaxis, environmental, and weaponry-related agents
 - “Either in preparation for or during my deployment, I took preventative pills (for example, to protect against nerve gas).”
 - “While I was deployed, I was exposed to smoke or other air pollution.”



Difficult Living & Working Environment ($\alpha = .90$; $r=.56$)

- A 14-item scale assessing exposure to events or circumstances representing repeated or day-to-day irritations and pressures related to life during military deployment
 - “The conditions I lived in were extremely unsanitary.”
 - “I was not allowed to do the things I needed to do to get my job done.”

Risk and Resilience Factors: Deployment – Interpersonal



Unit Social Support ($\alpha = .96$; $r = -.27$)

- A 12-item scale assessing the extent to which individuals perceive that they received assistance and encouragement from fellow unit members and unit leaders during deployment
 - “My unit was like family to me.”
 - “I felt like my efforts really counted to the leaders in my unit.”

New



Deployment Support from Family and Friends ($\alpha = .92$; $r = -.35$)

- An 8-item scale assessing the extent to which individuals perceive that they received emotional sustenance and instrumental assistance from family/friends *at home* during deployment
 - “During my deployment I was happy with the amount of communication I received from people at home.”
 - “During my deployment I was happy with the amount of support I received from people at home.”

Risk and Resilience Factors: Deployment – Interpersonal (cont.)



Sexual Harassment ($r=.32$)

- An 8-item scale assessing exposure to unwanted sexual contact or verbal conduct of a sexual nature from others during deployment
 - “While I was deployed, the people I worked with spread negative rumors about my sexual activities.”
 - “While I was deployed, the people I worked with used a position of authority to pressure me into unwanted sexual activity.”



General Harassment ($r=.36$)

- An 8-item scale assessing exposure to harassment that is non-sexual but that may occur on the basis of one's biological sex or minority or other social status
 - “While I was deployed, the people I worked with treated me in an overly critical way.”
 - “While I was deployed, the people I worked with ‘put me down’ or treated me in a condescending way.”

Risk and Resilience Factors: Deployment – Interpersonal (cont.)

New

Family Stressors ($r=.40$)

- A 14-item Yes/No measure assessing exposure to stressful family experiences during the time of deployment, such as family adjustment issues, family illnesses, and family financial problems
 - “While I was deployed, I had problems getting in touch with a family member or other loved one.”
 - “While I was deployed, I learned that a loved one was doing things that I disapproved of.”



Concerns About Life and Family Disruptions ($\alpha = .89$; $r=.31$)

- A 15-item scale assessing the extent to which individuals were concerned that deployment would negatively affect other important life domains, including especially family-related concerns
 - “While I was deployed, I was concerned about the effect of the deployment on my relationship with my spouse or significant other.”
 - “While I was deployed, I was concerned being cheated on by my spouse or significant other.”



Risk and Resilience Factors: Postdeployment



Postdeployment Stressors ($r=.40$)

- A 14-item Yes/No measure assessing exposure to stressful life events after the deployment, including both generally stressful events that are unrelated to the deployment and events that may be related to efforts at reintegration
 - “Since returning home, I went through a divorce or have been left by a partner or significant other.”
 - “Since returning home, I lost my job or had serious trouble finding a job.”



Postdeployment Social Support ($\alpha = .90$; $r=-.46$)

- A 10-item scale assessing the extent to which family, friends, and the community provide emotional sustenance and instrumental assistance after deployment
 - “When I returned, people made me feel proud to have served my country in the Armed Forces.”
 - “My family and friends understand what I have been through in the Armed Forces.”

Risk and Resilience Factors: Post-deployment (cont.)

New



Post-deployment Family Functioning ($\alpha = .96$; $r = -.42$)

- A 12-item scale assessing the quality of postdeployment family relationships in terms of communication and closeness
 - “My opinions are valued by other family members.”
 - “I share many common interests and activities with family members.”

Summary

- **Assesses broad array of deployment-related risk and resilience factors with documented implications for postdeployment readjustment**
- **Evidence for reliability and validity**
- **Recently updated to provide:**
 - **Broader assessment of stressors of contemporary warfare**
 - **Expanded coverage of family-related factors across deployment cycle**



Thank you for your attention!

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